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(71) Applicants (for all designated States except US): **CANON KABUSHIKI KAISHA** [JP/JP]; 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP). **SUGAWA, Etsuko** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KENMOKU, Takashi** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP).

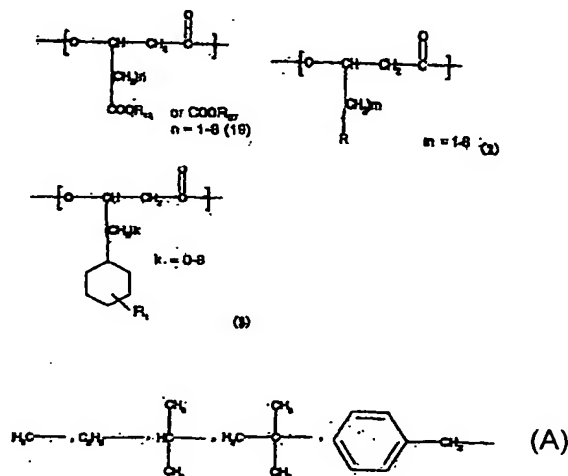
YANO, Tetsuya [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP). **MIHARA, Chieko** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP). **KOZAKI, Shinya** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP). **HONMA, Tsutomu** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP). **FUKUI, Tatsuki** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP). **IMAMURA, Takeshi** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 146-8501 (JP).

(74) Agents: **OKABE, Masao** et al.; No. 602, Fuji Bldg., 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo 100-0005 (JP).

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(54) Title: NOVEL POLYHYDROXY ALKANOATE COPOLYMER INCLUDING WITHIN MOLECULE UNIT HAVING VINYL GROUP OR CARBOXYL GROUP IN SIDE CHAIN, AND PRODUCING METHOD THEREFOR



(57) Abstract: The invention provides a PHA copolymer including at least a 3-hydroxy- ω -carboxyalkanoic acid represented by a formula (19) or (32) and simultaneously at least a unit represented by a formula (2) or a formula (3) in a molecule, a precursor PHA copolymer having a corresponding vinyl group or a corresponding alkoxycarbonyl group, a biosynthesis method thereof by microorganisms, and a method of producing a desired PHA copolymer from the precursor PHA copolymer: (wherein k, m, n are integers; R_{18} represents H, Na, K, R_{17} represents (A); R_1 represents a substituent on a cyclohexyl group and represents H, CN, NO_2 , a halogen atom, CH_3 , C_2H_5 , C_3H_7 , CF_3 , C_2F_5 , or C_3F_7 ; R includes a residue including a phenyl structure or a thienyl structure; these being independent for each unit).



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